

This species of the subgenus *Hookera* has long been known to the author, but since the characteristic stamen appendages were overlooked, it was thought to be a form of *Brodiaea synandra* (Heller) Jepson. As a distinct species it was first recognized in the field by W. L. Jepson, who made four collections of it in 1923 and at that time noted its distinctive characters. (W. L. Jepson, Field Book, vol. 39: pp. 171, 173, 177, 191, 199, ms.). The presence of appendages on the stamens has been noted previously only in *B. stellaris* Wats., a species occurring locally in the North Coast Ranges, which has broad appendages very different from the slender undulate ones of *B. appendiculata*. The short capsules serve to distinguish *B. appendiculata* from both *B. synandra* and *B. stellaris*, as well as from other species with which it might be confused. The corms are more deeply seated and have heavier sheathing coats than in other species of *Brodiaea*. The horizontally spreading fruiting pedicels also, are distinctive; among other species of the genus they have been observed only in *B. minor* (Benth.) Wats.

University of California, Berkeley,  
May 15, 1936.

#### REVIEW

*Flora of southeastern Washington and of adjacent Idaho.* By HAROLD ST. JOHN. Students' Book Corporation, Pullman, Washington. 1937. 531 pp. 14 figs. 1 map. Cloth, \$3.50; paper, \$3.00.

While Thomas Howell was bringing to conclusion his pioneer *Flora of Northwest America*, in 1901, there appeared a modest volume by Charles V. Piper and R. Kent Beattie, *Flora of the Palouse Region*, treating the 663 species and varieties found within a radius of 35 kilometers from Pullman, Washington. The authors expanded this, in 1914, into *A Flora of Southeastern Washington and Adjacent Idaho*, with descriptions of 1,141 species and varieties occurring naturally in the easternmost counties of Washington, from Spokane to Walla Walla, and a narrow strip of neighboring Idaho.

The present work is a lineal descendent of these earlier floras and frankly based upon them, covering the same area as the 1914 work, but it is not, in any sense, a compilation. Every description is original, drawn from the writer's wide field experience, or from personal consultation of specimens in numerous American and European herbaria. The preliminary study and writing has occupied seventeen years and the book affords ample evidence of the pains taken to make it clear, complete and in line with the most recent monographic treatments. A total of 1,473 species and subdivisions of species receives recognition and description.

St. John's flora embraces most of the desirable features to be found in a composite picture of the more recent manuals from the frontispiece map showing life zones in color, through the unusually complete glossary to the useful "Explanation of Authors' Names." The format follows the popular style inaugurated in W. L. Jepson's *Manual of the Flowering Plants of California*, but the genera and species are conveniently placed in strictly alphabetical order. A very clear and concise account of the physiography, the climate and the vegetational features of the area precedes the taxonomic treatment, but one might wish for more information as to the component floristic elements, their affinities and probable origin. C. Hart Merriam's "life zones" are accepted as being the best available indices of major plant environments.

The keys will, I think, evoke chief admiration! There are keys from one end of the book to the other and they approach mechanical perfection. The key to the families is helpfully illustrated with cuts of structures which usually confuse beginning students. *Salix* and *Antennaria* boast keys to the staminate plants and keys to the pistillate; the family Umbelliferae and the genus *Cogswellia* are provided with separate keys to the plants in flowering and in fruiting condition.

Charles Piper Smith is joint author of the treatment of *Lupinus* and J. H. Barnhart assisted with the bibliography of authors. Otherwise, the book is entirely its author's own and reflects his ideas and judgments throughout. It will be noted that more of Wilhelm Suksdorf's work has been taken cognizance of—even to the extent of accepting five of his *Amsinckia* species—than has been usual with American botanists. One recalls that St. John not only knew Suksdorf personally but that he was the man responsible for obtaining his priceless collection for the State College of Washington.

The original plan was to call the flora "Edition II" of Piper and Beattie's later book and the 1914 work is freely cited as "Edition I." However, St. John subsequently decided to omit the earlier authors' names and altered their title slightly, but continued to refer, rather ambiguously, to "Ed. I." Another title would have been preferable for the present work, and the idea was considered and discarded, although the use of such a name as "manual" might have made the similarity in names less confusing.

A tabulation of names reveals the following statistics: new species, 17; plants "doubtless new" but not described, 6; new varieties, 7; new forms, 7; new combinations, 39; new names, 4. The author states, by way of preface, "The writer does not subscribe to the recognition of minute genera and species . . . those minor elements so frequently announced as species by recent American botanists. The writer's concept . . . is not materially different from that of Piper." However, Piper's specific concept

was vastly different when he proposed 48 new species of *Allo-carya* from that when he wrote *The Flora of Washington*; St. John's treatments show a comparable unevenness. In his treatment of *Rosa*, St. John recognizes 8 species, 3 varieties and 3 "doubtless undescribed" species, and of these 4 species and 1 variety are described as new. George Neville Jones, during a recent study (*Madroño* 3: 120-135, 1935) saw the type collections of all of these but accepted only 9 species and 6 varieties of *Rosa* for the entire state of Washington.

The inclusion of more than forty *formae*, nearly half of them color-forms, is a precedent that few western botanists are likely to follow. That these may have a place in monographs seems defensible, but they seem completely out of place and pedagogically undesirable in a manual. Probably no one will criticize the adoption of the Englerian arrangement but not all will agree with St. John that the Engler and Prantl system "seems the best" arrangement of plant families.

However, the points taken issue with here are largely matters of individual preference and reflect the influence of one taxonomic school. St. John has been highly successful in producing a thoroughly workmanlike, up-to-date and usable flora for southeastern Washington, which will be of value to botanists everywhere but will be an especial boon to those teaching systematic botany within the area covered.—LINCOLN CONSTANCE.

#### NOTES AND NEWS

Word has been received from Japan that Dr. William A. Setchell of the Department of Botany, University of California, Berkeley, was elected an honorary member of the Botanical Society of Japan at the general meeting held in Sapporo on July 29, 1937.

Dr. Francis W. Pennell, curator of plants at the Academy of Natural Sciences, Philadelphia, spent the months of June, July, and August collecting Scrophulariaceae principally in Montana, Idaho, Oregon, and Washington. An especial effort was made to follow the trail of Lewis and Clark through Idaho, and so to determine the type locality of *Penstemon fruticosus* (Pursh) Greene.

Miss Sarah C. Dyal, who is studying the Valerianaceae at Cornell University, has been visiting Pacific Coast institutions this summer. She assisted in the University of Wyoming summer school, and plans to spend the winter at Oregon State College, at Corvallis. In the spring, Miss Dyal hopes to gain further field knowledge of the genus *Plectritis* in California and the Northwest.

The Associate Students' store, University of California, Berkeley, reports that the *Manual of the Flowering Plants of California*,